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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/995,340	11/27/2001	Robert Vanstory Teeple	P50-0071	9659

7590 10/21/2003

Michelin North America, Inc.  
Intellectual Property Department  
P.O. Box 2026  
Greenville, SC 29602

EXAMINER

FISCHER, JUSTIN R

ART UNIT	PAPER NUMBER
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1733

DATE MAILED: 10/21/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/995,340

Applicant(s)

TEEPLE ET AL.

Examiner

Justin R Fischer

Art Unit

1733

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 04 August 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-4 and 6 is/are pending in the application.
- 4a) Of the above claim(s) 5 and 7-10 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 6 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 May 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All   b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)                      4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)                      5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_                      6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

1. Applicant's election without traverse of a radial tire construction having a first, axially inner ply that encompasses a bead wedge insert and extends radially above a bead core and a second carcass ply that engages the radially inner end of said bead wedge insert (Figure 1, claims 1-4 and 6) in Paper No. 8 is acknowledged.

#### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 2, and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chung (WO 02/076767) and further in view of Mechanics of Pneumatic Tires (Page 373). Chung is applicable as a prior art reference under 102(e) in light of the amendments associated with the American Inventors Protection Act of 1999 and the Intellectual Property and High Technology Technical Amendments Act of 2002. This rejection can be overcome by filing an affidavit or declaration under 37 CFR 1.131 showing prior invention.

As best depicted in Figures 1 and 4d, Chung is directed to a tire construction having at least one bead wire coated with a rubber matrix, at least one bead filler formed of a rubber mix disposed axially and radially outward of the bead wire, a rubber wedge 5 formed of a rubber mix having a Shore hardness between 95 and 100, a first carcass ply 3d' (reinforcement ply) wound on said bead wire and engaging the radially

Art Unit: 1733

outer side of the rubber wedge, and a second carcass ply 3d wound on said bead wire and engaging the radially inner side of the rubber wedge. Chung, however, is completely silent as to the orientation of the carcass plies and thus necessarily fails to define the respective carcass plies as being "radial plies" or having reinforcing elements extending at an angle of approximately ninety degrees with respect to the equatorial plane of the tire. In any event, radial tire constructions are extensively used in the manufacture of modern day tires and have replaced the bias construction in a majority of tire designs. Mechanics of Pneumatic Tires (Page 373) has been applied to evidence the conventional and well-known use of "radial" tire constructions. As such, one of ordinary skill in the art at the time of the invention would have found it obvious to form the carcass plies of Chung as "radial" carcass plies.

It is noted that although Figure 4d of Chung does not expressly depict a bead filler, it is clearly evident from the description of the conventional tire of Figure 1 that a bead filler is present in the tire of Figure 4d. The inventive tire of Chung is not directed to eliminating the bead filler but rather is concerned with changing the winding method of the respective carcass plies and the characteristics/properties of the rubber wedge as compared to the conventional tire.

Regarding claim 2, as depicted in Figure 4d, the first carcass reinforcement 3d' surrounds the total perimeter of the rubber wedge, the second carcass reinforcement 3d is disposed axially outward of the first carcass reinforcement 3d', and the upturn of the first carcass reinforcement completely surrounds the upturn of the second carcass reinforcement.

With respect to claim 6, the respective inclination angles are depicted as being approximately between 20 and 30 degrees, which satisfies the limitations of the claimed invention. Although it is unclear if the drawings are working drawings, they can be used to obtain "gross relative dimensions". Furthermore, applicant has not provided a conclusive showing of unexpected results to establish a criticality for the claimed inclination angles.

4. Claims 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chung (WO 02/076767) and Mechanics of Pneumatic Tires (Page 373) as applied in the rejection of claim 1 above and further in view of Mechanics of Pneumatic Tires (Page 362). While Chung is silent as to the specific bead construction, several bead core forming methods are conventionally used in the tire industry, including the use of a solid core wire surrounded by helically wound layers and the use of a single wire wound circumferentially to form a multiple turn coil, as shown for example by Mechanics of Pneumatic Tires (Page 362, Figures 3.6(e) and 3.6(b) respectively). As such, it would have been obvious to one of ordinary skill in the art at the time of the invention to include either of the well-known and conventional bead constructions defined by the claimed invention in the tire design of Chung.

### ***Conclusion***

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Drieux (US 5,971,047), Auxerre (US 6,463,975), Diernaz (US 5,323,830), Inoue (JP 2000-118209), and Yasuda (JP 2-293207) are directed to similar

Art Unit: 1733

tire constructions in which a rubber wedge insert is disposed adjacent a bead core in respective bead regions.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Justin R Fischer** whose telephone number is **(703) 605-4397**. The examiner can normally be reached on M-F (7:30-4:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on (703) 308-3853. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

  
Justin Fischer

October 9, 2003

  
JEFF H. AFTERGUT  
PRIMARY EXAMINER  
GROUP 1300